

I Claim:

1 1. A method of controlling pulsed AC power that is supplied to a load wherein the
 2 AC power has a waveform in which alternating positive and negative power
 3 segments are separated by off segments, and wherein said load produces a reverse
 4 emf pulse at the commencement of at least certain ones of the power segments,
 5 comprising:

- 6 -- (a) detecting the magnitude of the reverse emf pulse at the commencement of at
 7 least certain ones of said power segments; and
 8 -- (b) adjusting the applied AC power being applied to the load based on the
 9 detected magnitude of the reverse emf pulse.

10 2. The method according to Claim 1 wherein said detecting the magnitude
 11 includes detecting the peak voltage of said reverse emf pulse.

12 3. The method according to Claim 2 wherein said detecting the magnitude
 13 includes detecting the width of said reverse emf pulse.

14 4. A method of controlling pulsed AC power that is supplied to a load wherein the
 15 AC power has a waveform in which alternating positive and negative power
 16 segments are separated by off segments, and wherein said load produces a reverse
 17 emf pulse at the commencement of at least certain ones of the power segments such
 18 that there is a notch defined between the reverse emf pulse and the following
 19 power segment, comprising:

- 20 -- (a) detecting the magnitude of the notch between the reverse emf pulse and the

8 associated power segment; and
9 -- (b) adjusting the applied AC power being applied to the load based on the
10 detected magnitude of said notch.

1 5. The method according to Claim 4 wherein said detecting the magnitude
2 includes detecting the voltage depth of said notch.

1 6. The method according to Claim 1 wherein said detecting the magnitude
2 includes detecting the width of said notch.

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